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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Joni D. Stutman-Horn
c/o BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025

EXAMINER

SCHUBERT, KEVIN R

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,825

Applicant(s)

SCHELLING ET AL.

Examiner

Kevin Schubert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claims 1-31 have been considered. Examiner maintains the position presented in the previous action.

5

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

10

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15

Claims 24-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

20

Examiner finds does not find limitations of the claimed invention in the Specification. For example, Examiner does not find the limitation "when a message from an authorized party is not received at a BIOS; booting the system in a default state" as disclosed in claim 24. Appropriate correction or specific reference to the Specification as to where the claimed invention is disclosed is required.

25

Claims 27-31 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 27, applicant never discloses that the group of resources **consists** of storage capacity, processor redundancy, and processor speed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5 Claims 27-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 27, applicant discloses "**wherein the system resource is one or more of the resources** selected from the group of system resources consisting of storage capacity, processor redundancy, processor speed, memory, input/output devices, processors, redundant power supplies, Peripheral Component
10 Interconnect (PCI) bus, and other elements of the system contributable to processing power". It is unclear how the system resource can be a plurality of resources. Appropriate correction is required.

 Claims 27-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In
15 claim 27, applicant discloses "wherein the system resource is one or more of the resources selected from the **group of system resources consisting of storage capacity, processor redundancy, processor speed**, memory, input/output devices, processors, redundant power supplies, Peripheral Component Interconnect (PCI) bus, and other elements of the system contributable to processing power". Capacity, redundancy, and speed are intangible ideas. While tangible resources like memory, i/o devices,
20 processors, etc may contribute to intangible ideas like speed, speed is not a tangible resource having controllable optional features.

Claim Rejections - 35 USC § 102

 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for
25 the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

30 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5 Claims 1-4,8-14,17-20,24, and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Tello, U.S. Patent No. 6,463,537.

As per claims 1,8,17,24, and 27, the applicant describes a method comprising the following limitations which are met by Tello:

- 10 a) receiving, at a BIOS, a message from an authorized party (Col 31, lines 29-60);
- b) authenticating the message (Col 31, lines 29-60);
- c) controlling a state of an optional feature of a system resource, using the BIOS, according to the message, wherein the message comprises information to determine the optional feature, and wherein the message further comprises a digital signature (Col 31, lines 29-60; Col 5, lines 15-48).

15 As per claims 2,11-12 and 18, the applicant describes the method of claims 1,8, and 17, which are met by Tello, with the following limitation which is also met by Tello:

Further comprising verifying an identifier in the message against a unique system identifier (Col 5, lines 15-48; Col 9, lines 26-30).

20 As per claims 9 and 10, the applicant describes the system of claim 8, which is met by Tello, with the following limitation which is also met by Tello:

Further comprising a write-once non-volatile unit for storing a public key accessible by the BIOS (Col 15, lines 6-13).

25 As per claims 13 and 14, the applicant describes the system of claim 8, which is met by Tello, with the following limitation which is also met by Tello:

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Further comprising a secure non-volatile location for storing at least one of the optional features to be enabled, the location being readable and writable by the BIOS (Col 26, lines 18-43).

As per claims 3-4 and 19-20, the applicant describes the system of claims 1 and 17, which are met by Tello, with the following limitation which is also met by Tello:

Further comprising writing the message into a secure non-volatile location (Col 26, line 63 to Col 27, line 8).

As per claim 28, the applicant describes the system of claim 27, which is met by Tello, with the following limitation which is also met by Tello:

Wherein the secure message is to be received by the BIOS during run-time of the system (Col 31, lines 29-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view of Nevis, U.S. Patent No. 6,581,159.

As per claims 5 and 21, the applicant describes the method of claims 1 and 17, which are met by Tello, with the following limitation which is met by Nevis:

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Further comprising splicing the content of the message into an execution path of the BIOS, wherein the splicing comprises at least one of modifying the BIOS or erasing a portion of the BIOS, in response to the message (Nevis: Col 4, lines 57-67; Col 6, lines 28-35);

5 Tello teaches all the limitations of claims 1 and 17. However, Tello does not teach the limitations of the above claim. Nevis discloses a system in which a BIOS update message is sent to the BIOS and the BIOS is altered at execution time. Nevis satisfies the limitations of the above claim as Nevis teaches splicing a message (Col 6, lines 28-35) into an execution path of the BIOS at run-time. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Nevis with those of Tello because doing so allows the message sent to be executable at run-time by
10 modifying the run-time status of the BIOS. The combination would be advantageous as the primary reference teaches communicating with the system during boot-up time.

Claims 6,16,22,26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view of Ala-Laurila, U.S. Patent No. 6,704,789.

15

As per claims 6,16,22,26, and 30, the applicant describes the method of claims 1,8, and 17, which are met by Tello, with the following limitation which is met by Tello and Ala-Laurila:

Further comprising loading and executing content of the message using the BIOS at run-time, wherein the message is received via a network transmission (Tello: Col 31, lines 29-60; Ala-Laurila: Fig
20 3A);

Tello discloses all the limitations of claims 1,8, and 17. Tello also discloses loading and executing content of the message using the BIOS at run-time. Tello does not disclose that the message is sent through a network transmission. Tello is silent as to how the communication between the smartcard and the system takes place. Ala-Laurila discloses the well-known idea that communication
25 between two entities can take place through a network environment. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Ala-Laurila with those

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of Tello because sending information through a network transmission is well-known as an effective method of transmitting data.

Claims 7,15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view
5 of Obata, U.S. 2001/0025312.

As per claims 7,15, and 23, the applicant describes the method of claims 1,8, and 17, which are met by Tello, with the following limitation which is met by Obata:

Further comprising updating a feature set of the system BIOS according to the message (Obata:
10 Fig 2);

The applicant has defined "updating a feature set" to signify updating the status of system features (Specification: page 5, line 22). The applicant has further signified that updating the status of system features is preferably implemented in a table-like fashion to keep track of the status of system resources (24 of Fig 1). Obata discloses the idea of updating the status of system features in a table-like fashion. It
15 would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Obata with those of Tello because updating a feature set provides a convenient way to check the status of resources within a system.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view of
20 Alexander, U.S. Patent No. 6,393,559.

As per claim 29, the applicant describes the system of claim 28, which is met by Tello, with the following limitation which is met by Alexander:

Wherein the system is to be rebooted to enable the BIOS to control the at least one of the
25 optional features according to the received secure message (Alexander: Col 3, lines 23-46);

Tello discloses all limitations of claim 28. Tello, however, does not disclose all the limitations of the above claim. Alexander discloses the idea of rebooting rectification of possible a software or

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hardware glitch and to ensure proper initialization and control for the BIOS. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Alexander with those of Tello and incorporate the functionality of rebooting to ensure proper initialization and rectify possible glitches.

5

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view of Lau, U.S. Patent Application No. 2003/0052906.

As per claim 31, the applicant describes the system of claim 27, which is met by Tello, with the following limitation which is met by Lau:

Wherein the secure message comprises executable code to be used as a Dynamically Loaded Library (DLL), and wherein the DLL is to be stored in non-volatile storage coupled to the BIOS, and wherein the DLL is to be loaded by the BIOS at run-time (Lau: [0037]);

Tello discloses all the limitations of claim 27. Tello, however, fails to disclose the use of a DLL. Lau discloses the functionality loading a DLL to provide plug-in support. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Lau with those of Tello in order to make the system more robust by incorporating the functionality of providing plug-in support.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tello in view of Merkin, U.S. Patent No. 6,584,561.

As per claim 25, the applicant discloses the limitations of claim 24, which is met by Tello (see above), with the following limitation which is met by Merkin:

Further comprising slicing the content of the message into an execution path of the BIOS (Col 2, lines 27-34);

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Tello discloses all the limitations of independent claim 1. However, Tello fails to disclose splicing the content of the message. Merkin discloses a boot system similar to Tello's system with the main difference that Merkin's system revolves around a CD boot while Tello's system revolves around a smart card boot. Merkin discloses that the message received from the CD includes identification data and boot software. Once the data has been authenticated, the boot software is split from the rest of the message and alone "the boot software is copied back to the execution part" (Col 2, lines 20-21). It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Merkin with those of Tello and splice the content of the message into an execution path of the BIOS because only the necessary data needs to be sent to the execution path of the BIOS.

10

Response to Arguments

Applicant's arguments filed 11/4/05 with respect to claims 1, 8, and 17 have been fully considered but they are not persuasive. Applicant argues that Tello does not teach receiving a message at a BIOS. Applicant argues that the smartcard authentication takes place with the security engine microprocessor and NOT at the BIOS level as required by the claimed invention. Examiner respectfully disagrees.

15

The smartcard authentication takes place at the BIOS level as the BIOS takes control and utilizes the security engine microprocessor in the authentication. Accordingly, Tello teaches the following:

"The present invention provides a means for **identifying and verifying the identity of authorized users through smartcard identification performed at the BIOS level**" (Col 4, lines 62-63).

20

Applicant further argues that the applicant's claimed invention "does not preclude booting in a default state. One of ordinary skill in the art will recognize that when optional features of the system resources are not authorized, or unverified messages are discarded, that non-optional features will still boot normally" (see Remarks bottom of page 2). To the extent these statements are true, this argument is moot in that it is outside the scope of the claimed invention.

25

Applicant further argues that the "teachings of Tello to the present invention would require a smartcard reader and a security engine microprocessor. Applicant's claimed invention may have

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advantages to the teachings of Tello in that it does not require additional hardware or processors to operate" (see Remarks top of page 3). To the extent these statements are true, this argument is moot in that it is outside the scope of the claimed invention.

Applicant further argues that a message from an authorized party is not received at the BIOS level (see Remarks page 3). Applicant argues that "one of ordinary skill in the art would understand that an authorized party means a message from an OEM or similar" (see Remarks page 3). Examiner respectfully disagrees. Tello teaches that a message from an authorized party is received at the BIOS level (see, for example, Col 4, lines 62-63, provided above). As a sidenote, even though applicant's argument has been satisfied in the discussion above, Examiner notes that one of ordinary skill in the art would understand that an authorized party means an OEM or similar. Such an argument is entirely outside the scope of the claims. Nowhere in the claims does applicant teach that the authorized party is an OEM.

Applicant's arguments with respect to claims 2, 11-12, and 18, have been considered but are not persuasive. Applicant argues that Tello teaches an identifier in the message and a system identifier, but the identifier is not unique. Examiner argues that the identifier is not unique because it may be used in different computers. Examiner respectfully submits that such an argument is not persuasive on any level. It appears to the examiner that Tello never teaches having the same identifier used in many different computers. Even if Tello had disclosed that the same identifier was used in many different computers, the argument would still not overcome the limitations of the claim. There is one unique identifier on the system which identifies the user.

Applicant's arguments with respect to claims 9-10 have been fully considered but are not persuasive. Applicant argues that the public key, in the flash memory, is not accessible to the system BIOS. Examiner respectfully disagrees. The modified BIOS of the system controls the security engine microprocessor flash memory. The identifying and verifying of authorized smartcard users is via public key cryptography done at the BIOS level. Hence, the public key is accessible to the system BIOS, and

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the applicant's arguments are not persuasive. Applicant further argues that it is apparent to one of ordinary skill in the art that the memory may be written over many times. To what extent the applicant's argument would overcome the limitations of the claim, Examiner respectfully submits that it is not apparent to one of ordinary skill in the art that the memory may be written over many times. Examiner
5 finds no indication of that the memory may be written over many times in Tello's disclosure.

Applicant's arguments with respect to claims 13-14 have been fully considered but they are not persuasive. Applicant argues that only the security engine microprocessor performs the authentication, and that the authentication is not performed at the BIOS level. Examiner respectfully disagrees and notes
10 this argument has already been discussed. Further, It appears that applicant is arguing that the location is not readable and writable by the BIOS. Examiner respectfully disagrees. The passage cited in the previous action clearly indicates the enablement of optional system by the BIOS (see Tello: Col 26, line 18-43).

15 Applicant's argument with respect to claims 5 and 21 have been fully considered but they are not persuasive. It appears applicant is trying to invoke the 103(c) exclusion principle. The examiner respectfully notes that the applicant's attempt to invoke the 103(c) exclusion principle does not overcome the present rejection for at least the reason that it does not appear on a separate piece of paper or in a separately labeled section. Accordingly, the rejection has been maintained. See MPEP 706.02(I)(2).

20 Applicant's arguments with respect to claims 6, 16, and 22 have been fully considered but they are not persuasive. Applicant argues that the combination of Ala-Laurila with Tello would not be possible. More specifically, applicant argues that Tello teaches inserting a smart-card into a device, such as a reader, and sending the information from the device to a computer. Applicant argues that network
25 transmission would not be possible. Examiner disagrees and respectfully submits that applicant may have mischaracterized the rejection as applied. Ala-Laurila teaches inserting a smart-card into a device and sending the information from the device to a computer *over a network transmission*. Combining the

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ideas of Ala-Laurila with those of Tello merely allows for the reader device of Tello to communicate with the computer over a network transmission.

Conclusion

5 **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH
10 shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

 Any inquiry concerning this communication or earlier communications from the examiner should
15 be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)
25 at 866-217-9197 (toll-free).

KS


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER